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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/687,524	10/12/2000	William E. Bernier	END-00-0034US1	1044

7590 04/19/2002

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EXAMINER

JOHNSON, JONATHAN J

ART UNIT	PAPER NUMBER
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1725

6

DATE MAILED: 04/19/2002

①

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/687,524

Applicant(s)

BERNIER ET AL.

Examiner

Jonathan Johnson

Art Unit

1725

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 February 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) 12-22, 26 and 29-32 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 23-25, 27 and 28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-32 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, Claims 1-11, 23-25, and 27-28 in Paper No. 4 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

Claims 1-8, 10-11, 24-25, and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Pendse (6,059,894). Pendse teaches providing a solderable surface having a tin oxide thereon (Column 4, Lines 20-45); applying a complexing agent to the solderable surface (Column 5, Lines 1-10); forming a reaction product with the tin oxide and the complexing agent, wherein the reaction product decomposes to tin oxide and volatile products upon being exposed to reflow conditions (Column 3, Lines 50-60).

With respect to Claim 2, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches forming a reaction product with tin (Column 4, Lines 25-30).

With respect to Claim 4, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches forming the reaction product with the tin oxide and the complexing agent comprises heating (Column 4, lines 20-30).

With respect to Claim 6, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches the complexing agent comprises pimelic acid (Column 5, Line 3).

With respect to Claim 7, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches the complexing agent comprises a flux (Column 4, Lines 10-65).

With respect to Claim 8, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches the complexing agent comprises sebacic acid (Column 5, Lines 1-6).

With respect to Claim 24, the teachings of Pendse are the same as relied upon in the rejection of Claim 1. Pendse teaches the the complexing agent comprises adipic acid (Column 5, Lines 1-10).

Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Arldt et al. (5,531,838). Arldt et al. teaches providing a solderable surface having a tin oxide thereon (Column 5, Lines 1-10, Column 4, Column 2, Lines 15-30); applying a complexing agent to the solderable surface (Column 5, Lines 1-30); forming a reaction product with the tin oxide and the complexing agent, wherein the reaction product decomposes to tin oxide and volatile products upon being exposed to reflow conditions (Column 1, Lines 15-30); wherein the complexing agent consists of pimelic acid (Column 3, Line 25-40).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pendse as applied to claim 1 above and further in view of Gao et al. (5,514,414). Gao et al. teaches the complexing agent comprises vapor phase deposition (abstract). It would have been obvious to one of


ordinary skill in the art at the time of the invention to modify the method of Pendse to apply the flux without the use of volatile organic chemicals (see Gao et al. abstract).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jonathan Johnson whose telephone number is 703-308-0667. The examiner can normally be reached on M-Th 7AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Dunn can be reached on 703-308-3318. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

jj 
April 10, 2002


M. ALEXANDRA ELVE
PRIMARY EXAMINER